

THE HISTORY OF ASIATIC CHOLERA  
IN THE UNITED STATES\*

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THE long history of the Western World has seen many diseases rise and fall. Leprosy, bubonic plague, sweating sickness, malaria, and smallpox at one time or another have all presented serious threats to the health of Europeans. The bubonic plague or Black Death swept into Europe in the mid-14th century, remained as an endemic disorder for 400 years, and then quietly disappeared. Smallpox became a major killer among diseases in the late 16th century, peaked in the 18th, and was already declining by 1796 when Jenner discovered vaccination. Diphtheria was of minor consequence prior to the 1730's and 1740's when it suddenly became widespread throughout Europe and eventually crossed the Atlantic to the American colonies. The last great pestilence to sweep through the Western World was Asiatic cholera, a highly fatal and terrifying disorder which came in three successive waves from 1832 to 1873. These cholera onslaughts coincided with and reinforced the 19th century movement for sanitation, the success of which guaranteed that the disease would never again plague an advanced industrial country.

Since the Atlantic Ocean has served as a transportation route rather than a barrier throughout most of American history, the endemic and epidemic disorders of Europe have invariably affected Americans. Malaria, typhoid, and a host of other infections landed with the first settlers. The one major difference in Colonial America arose from the relative isolation of the colonies from Europe and from each other. Many diseases which were endemic in Western Europe, such as smallpox and measles, did not gain a permanent foothold in America until the late 18th century. In consequence, for the American colonies they were major epidemic disorders, striking indiscriminately at persons of

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all ages. As the population grew and trade with Europe increased, these infections also became firmly embedded in colonial towns and cities, and in so doing they became familiar complaints, no longer creating terror and alarm.

By the 19th century the eastern part of the United States was no longer a sparsely settled domain on the fringes of the Western World, but rather an integral part of it. Large urban populations and improvements in the land and water transportation systems had made certain that any new disease afflicting Europe would spread to and through North America. Moreover, the same urbanization and industrialization which set the stage for the relatively brief career of Asiatic cholera in Western Europe also had created a congenial milieu for it in North America. American cities were expanding too rapidly for the relatively weak municipal governments to cope with the growing sanitary and health problems. Effective sewerage and water systems were the exception for most of the century, and a good part of the town dwellers relied upon shallow wells fed by the constant overflow and seepage from the cesspools and privies. Perennial housing shortages resulted in jamming newcomers into dilapidated older dwellings left by the well-to-do as they sought newer and better housing on the outskirts. The crowded warrens occupied by the lower-income groups lacked all amenities and made personal hygiene virtually impossible. By 1832 the stage was set for the appearance of cholera in North America.

The background of Asiatic cholera, a disorder which had long been endemic in the Far East, is well known. Suffice it to say that a major outbreak in 1817 gradually spread westward. By 1830 it had reached Russia, and from there it swept through Europe to reach Great Britain by 1831. Early in the summer of 1832 the disease appeared in Quebec and Montreal and, shortly afterward, it spread to New York City. Asiatic cholera had all the properties for arousing fear and consternation. It was a new and unaccountable sickness; it coursed rapidly through the population; it could bring death in a matter of hours; and the pinched, blue faces and dark, drawn skin of its victims were a fearful sight to all who witnessed them.

The dread and apprehension caused by cholera was enhanced by the fact that it became the most widely heralded epidemic disorder ever to strike the United States. The advent of relatively cheap newspapers in the early 19th century provided an excellent medium for com-

munication, and the American public was kept abreast of the seemingly inexorable spread of the disease westward. Long before cholera reached the United States, newspapers, popular magazines, and professional journals carried long, detailed accounts of its ravages in Russia and Europe. The intimate relation between dirt and disease was widely recognized, and editors, physicians, and private citizens all joined in urging local authorities to begin large-scale sanitation programs. By the time the epidemic wave reached England a rising air of tension and alarm was reflected in the news items and feature stories on cholera which were preoccupying the attention of American newspapers.

In the winter and spring of 1832 every American city began girding itself against the threatening pestilence. Mayor Walter Bowne of New York City proclaimed a strict quarantine against European and Asian ports, and the New York City Council formed a joint committee to suggest ways for improving the street-cleaning system. On June 15 news that cholera was present in Quebec and Montreal heightened the tension and stimulated the City Council to vote \$25,000 for the Board of Health "to use in such manner as may be thought advisable, as the erecting of hospitals, and other means, to alleviate and prevent the cholera." The board promptly ordered city officials to enforce rigorously all health laws and to see that the city was made as clean as possible. At the same time the board sent two physicians to Montreal and Quebec to investigate the outbreaks there. In the meantime the local medical society organized a special 15-man committee to recommend preventive measures. The committee's recommendations, reflecting the prevailing medical beliefs, centered on a massive sanitation program, personal hygiene, and a moral and temperate life.<sup>1</sup>

By the time New Yorkers learned of the cholera outbreaks in Montreal and Quebec, the disorder had already entered upstate New York. The governor of the state promptly called a special session of the legislature. Within two days a health law was enacted and signed by the governor which provided for a strict quarantine along the Canadian frontier and required all towns and villages bordering on the lakes, rivers, and canals to appoint local health boards. Vermont and other states, too, began invoking quarantine measures and appointing temporary health boards.<sup>2</sup> As they had done for hundreds of years, the well-to-do citizens began a mass exodus from towns and cities, literally jamming the roads with their carriages and wagons.

By the middle of June cholera dominated the thoughts of New Yorkers. The subject became a favorite theme for sermons, and apothecaries began doing a land office business in cholera preventives. "The consternation in the city is universal," one New Yorker recorded in his diary on June 17, "Wall Street and the Exchange are crowded with eager groups waiting for the latest intelligence."<sup>3</sup> Despite the deplorable sanitary condition of the city, the Board of Health demonstrated a masterful inactivity and contented itself with reassuring the public that all was well. When several cases of cholera were reported by physicians late in June, the health officials refused to admit their presence. Since the announcement of the presence of a virulent epidemic disease often caused panic, health boards in this period were always reluctant to admit the fact until it was all too obvious. In this instance, with the wildest rumors spreading and the public already apprehensive, the Board of Health merely discredited itself.<sup>4</sup>

The reaction of New Yorkers to cholera had its counterpart in hundreds of other American cities and towns. In Pittsburgh the newspaper coverage of the cholera pandemic was similar to that of the New York journals. A series of articles in the winter of 1831-1832 discussed the cause, cure and prevention of cholera. Most writers emphasized that "intemperance, disorderly living, and want of cleanliness" were prime predisposing conditions, and they exhorted their readers to adhere "to a sober and temperate mode of living." In June 1832 the *Pittsburgh Gazette* editorialized that the spreading alarm was probably beneficial, since "there is great necessity for the most energetic measures for purifying our city. . . ." Pittsburgh had one major advantage, the *Gazette* added, in "the coal smoke which obscures our atmosphere while it neutralizes all the miasma which comes within its influence." Thus "the same furnace or factory which contributes to the luxurious enjoyments of the capitalist, saves the industrious laborer from the ravages of the disease."<sup>5</sup>

Far to the south the citizens of New Orleans were watching the course of the epidemic with a similar morbid fascination. The local newspapers were filled with stories of the progress of the disease and editorials and letters stressed the need for a drainage and sanitation program. The first direct impact of the arrival of cholera in the United States was felt by the local newspapers. The editor of the *New Orleans Courier* announced on July 17 that he was reducing publication to

three times a week because the disruption caused by cholera in the North had cut his supply of paper and reduced the flow of news. On August 1 the *Courier* declared: "The Cholera continues to be the all absorbing topic of public attention. Reports of its progress are looked for by our citizens with intense anxiety. Go where you will, you hear nothing talked of but the *Cholera*—which seems to be thought worse than death itself."<sup>6</sup> Despite a series of scares, it was not until late in October that cholera arrived in New Orleans. Dr. Theodore Clapp, a prominent clergyman, claimed to have seen the first cases when he chanced upon two men in a dying condition who had been put ashore from a newly-docked steamboat. A crowd had gathered around them when a physician rode up, glanced at the men, and immediately declared they had Asiatic cholera. The crowd fled in panic. "That day," Dr. Clapp wrote, "as many persons left the city as could find the means of transmigration."<sup>7</sup>

Although New Orleans was the last major city to feel the effect of the disease in 1832, it suffered the heaviest casualties. Following the arrival of cholera late in October, the disease spread through the waterfront area with startling speed. On November 5 the New Orleans *Emporium* reported: "The people are in a state of suffering, despondency and excitement unparalleled in the history of our city. 'Death on the pale horse' for the last ten days has been rapidly engaged in the indiscriminate work of slaughter. Not less than *eighteen hundred* individuals have perished since the commencement of the disease." Corroborating the grim account of the *Emporium*, the *Courier* asserted four days later: "Since its commencement here it has made dreadful havoc, many believing that no less than 2,000 deaths occurred during the fourteen days commencing the 23rd October."<sup>8</sup>

Fortunately the outbreak lasted only a little over three weeks. In that period the estimates of the number of dead ranged from 4,350 to 5,000. This enormous mortality in so short a period of time created difficulties in burying the dead. A shortage of wagons and carriages was caused by the thousands who had fled to escape the successive epidemics of yellow fever and cholera, making it necessary for municipal officials to requisition all available vehicles to carry the dead to the graveyards. Even so, bodies accumulated at the cemeteries faster than they could be buried. Emergency measures, including mass burials, were put into effect, but occasionally as many as 100 bodies were waiting when the

gravediggers arrived for work in the morning. The city's population of about 50,000 had been reduced to 35,000 by a yellow fever epidemic in the summer and early fall. Since it was further reduced by a second exodus following the appearance of cholera, this means that between 15 and 20% of the city's population was wiped out within less than a month. During this time virtually all economic activities were halted, and the task of caring for the sick and burying the dead preoccupied all who remained in New Orleans.<sup>9</sup>

In New York the outbreak lasted about six weeks; it reached a peak shortly after the middle of July and ended early in August. Here, too, the flight of so many middle- and upper-class residents brought economic stagnation, complicating the problems of the poor who invariably bore the brunt of the onslaught. The Board of Health spent \$118,000 during this period; about 40% of these funds was devoted to a drainage and sanitary program and the rest for hospitals and medical care. Both the Board of Health and the Special Medical Council campaigned to raise the moral standards of the lower classes. Public notices advised personal cleanliness and temperance in eating and drinking, and urged workers to avoid laboring in the heat of the day. Just how men whose livelihood depended upon hard physical outdoor work could avoid the latter injunction was never stated; nor did anyone see the irony in advising the dozens of families sharing one hydrant and two or three privies to practice personal hygiene. Although the belated efforts of the Board of Health could have had only limited value, the death toll in New York was well below that in New Orleans. Nevertheless 3,000 of its citizens perished in the summer of 1832.<sup>10</sup>

The desultory fashion in which cholera took its toll is clearly illustrated in the case of Pittsburgh, Pa., and of Wheeling and Charleston, W. Va. The three cities exhibited the usual lack of sanitation and their citizens were justifiably apprehensive, yet none of these places suffered major outbreaks in 1832. A number of scattered cases led to 30 deaths in Pittsburgh in the late fall, but Wheeling and Charleston remained free of the disease. The latter city, however, had a narrow escape. A river boat with cholera aboard was wrecked on nearby Folly Island. When the infection spread to some of the residents, the authorities in Charleston immediately placed guards on the island to prevent anyone from leaving. Although over 50 cases and 20 deaths occurred on Folly Island, the rigid quarantine prevented the disease from spreading to

Charleston. The following spring, however, an explosive outburst in Wheeling brought death to 153 of the town's 3,500 inhabitants within the space of six weeks. In the small community of Triadelphia, eight miles east of Wheeling, cholera broke out in July of 1833 and within a few days there had been 17 cases and eight deaths in a total population of about 50. That same summer cases appeared in Pittsburgh and Charleston, yet in both instances did relatively little harm.<sup>11</sup>

As already noted, cholera started in upstate New York and from there literally spread throughout the eastern part of the continent. It followed the water and stagecoach routes to even the most remote communities, in some instances skipping lightly over a town or settlement and striking others with deadly effect. Of the major cities, only Boston and Charleston escaped the onslaught. In the South the disease proved devastating to Negro slaves. In coursing along the rivers and bayous it left an indelible impression wherever it landed. One Louisiana plantation alone lost 83 of its 104 slaves.<sup>12</sup>

As indicated, the disease continued to strike sporadically in 1833 and 1834 and then mysteriously disappeared for 15 years. The second great pandemic of Asiatic cholera reached the shores of America late in 1848 and ranged far and wide for seven years. The disorder had been general in Europe and Asia during the 1840's, and the mass migration of the Germans and Irish to America ensured that the infection would spread to the American continent. Like its predecessor, this epidemic wave was equally well heralded, and dire warnings were sounded by the newspapers and medical journals. The temporary health boards brought into existence by the previous outbreak had long since withered on the municipal vines, and the tentative efforts toward municipal sanitation had been swamped by the exploding city populations.

Sanitary conditions in 1848 were at least as bad as they had been when cholera first appeared. In those cities which provided street cleaning, the work was performed by private contractors who conscientiously and all too successfully sought to do as little as possible. Street cleaning contracts were considered a form of political patronage, a state of affairs scarcely conducive to clean streets. Hogs, with some assistance from dogs and cats, were the chief scavengers, but they added little to the cities, either aesthetically or in terms of health. In the preceding 15 years a few miles of sewerage had been added to the major cities, but much of the wastes continued to pour into the gutters, open streams, and canals.<sup>13</sup>

Under these circumstances, Asiatic cholera proved just as devastating as it had in the previous attack. In New York City the Quarantine Station first reported the disease in December. Prompt and effective isolation measures kept the disease from spreading into the city, although 61 cases resulted in 32 deaths before the situation was brought under control. In the succeeding months occasional cases of what was suspected as cholera were reported, but it was not until May that a definite diagnosis was made of several cholera cases in the Five Points district, one of New York's worst slum areas. Despite all efforts by city authorities, the outbreak slowly picked up momentum in June and reached a peak in July. By the time the epidemic was proclaimed at an end, October 1, the official death toll amounted to 5,071. The true figure may well have been much higher. One of the physicians who served with the Board of Health claimed that private practitioners reported only a fraction of their cases. He estimated that cholera struck between 18,000 and 20,000 individuals, of whom about 8,000 died.<sup>14</sup>

Sporadic cases of cholera kept recurring in New York City during the next five years, with minor outbreaks almost every summer. The disease broke out in epidemic fashion once again in the summer of 1854. The precise death toll is not clear, but 1,178 deaths were recorded from cholera as of August 11. Fortunately, the worst of the epidemic was over by this time. This attack marked the end of the second wave, and cholera virtually disappeared from New York for about 12 years.<sup>15</sup>

Almost at the same time that the pestilence landed in New York City, it appeared in New Orleans. Here, too, the source of infection was an immigrant vessel which arrived on December 18, 1848. Unlike New York, where the infection had sputtered and flared for several months before reaching epidemic proportions, in New Orleans an explosive outburst immediately spread throughout the city. One of the newspapers conceded that the disease had caused 800 deaths by the end of December, while Dr. Joseph Jones, a prominent local health leader, subsequently estimated a death toll of 1,641 during this two-week period. In the course of the following year another 3,176 deaths from cholera were recorded. The disorder continued to flare up every year through 1855, the annual cholera deaths ranging from 450 to 1,448. After 1855 only a few scattered cases were reported until 1866, when the disease again struck in epidemic fashion.<sup>16</sup>

During all of these years, the disorder swept up and down the rivers



and bayous of Louisiana, causing justifiable alarm and inflicting heavy casualties. In the spring of 1850 a diarist in North Louisiana recorded: "Cholera prevailing on boats, many dying." Few towns and villages escaped the disease, but wherever the infection appeared, Negro slaves seemed to bear the brunt of the attack. Many planters sought to protect their slaves by moving them into the woods. In Alexandria, La., the local newspaper reported that the appearance of cholera had caused one plantation owner to send all 700 of his slaves into the pine woods. The action was taken too late, the editor added, since 70 slaves were already dead and another 80 sick with the disease. Bishop Leonidas Polk wrote from his plantation: "We were during the presence of the disease absolutely so occupied as hardly to have a moment for anything but attention to the sick and dying and so could do nothing in the way of advising our friends of our condition." Of the 300 odd residents on his plantation, only 50 had escaped the disease and 70 had died. Polk mentioned another plantation which had lost 97 slaves, "65 of whom died in the field three days after the attack was made."<sup>17</sup>

The Pittsburgh area and western Pennsylvania managed to escape most of the worst effects of the second wave of cholera. On New Year's Day, 1849, the *Pittsburgh Gazette* reported that cholera had struck New Orleans and was now moving up the Mississippi River. In this and succeeding issues, the editor suggested the establishment of a cholera hospital and urged the civic authorities to purify and cleanse the city. The disease reached Pittsburgh in March of 1850, striking in and around the city in desultory fashion. As summer advanced and the number of cases increased, a Pittsburgh newspaper stated: "A thousand vague rumors of the terrible ravages of the cholera are flying around town, and the minds of our citizens are filled with apprehension."<sup>18</sup> Fortunately, the worst fears were not realized, and by September the disorder subsided. From March to September the cholera death toll stood at 300. Sporadic cases were reported in the succeeding years, but the disease did not flare up epidemically until 1854. In that year it exploded late in July and early September and killed about 1,000 of the city's approximately 50,000 residents. This marked the last major assault on Pittsburgh.<sup>19</sup>

As had been the case during the previous outbreak, Asiatic cholera spread throughout the United States in 1849. The Western cities, with their large transient populations, took heavy casualties. St. Louis, Cin-

cinnati, Sandusky, San Antonio, and a host of smaller towns all experienced severe outbreaks of cholera, in some instances losing 10% or more of their populations. After 1849 the disease continued to flare up for six more years before finally burning itself out in 1854-1855.<sup>20</sup>

The third wave of cholera arrived in 1866, once again giving ample warning of its coming. By this date the relation between bowel discharges and the spread of the infection was generally recognized; moreover, the sanitary movement was in full swing. The net effect was to reduce drastically the impact of the disease. In New York the threat of cholera had helped propel a measure through the state legislature creating a Metropolitan Board of Health for New York City. This agency resorted to strenuous measures to clean the city and to identify and isolate cholera cases. Judging by the course of the epidemic in the rest of the country, New York City probably would have experienced only a mild outbreak, but the efforts of the health officials undoubtedly helped to minimize its effects even further.<sup>21</sup>

The infection once again coursed through America, but with a few exceptions the attacks were relatively mild and short-lived. New Orleans, which had endured a long military occupation and the resultant social and economic disruption, suffered heavily during this attack. The first cases were diagnosed in August 1866 and the disorder quickly spread throughout the city. On this occasion cholera exacted about 1,294 deaths. The disease returned the following year and claimed another 681 victims. In 1868, the last cholera year, only 129 deaths were reported.<sup>22</sup> It should be borne in mind that mortality figures for this period are always suspect; many deaths went unrecorded and even the best of physicians were often uncertain as to the cause of death. Cholera returned to the United States in a small way from 1873 to 1875. The presence or rumors of its presence created a considerable public furore, but the cases were few and scattered. Nonetheless, the threat of Asiatic cholera continued year after year to bring forth newspaper editorials and feature stories, to alarm the public, and to provide the sanitarians and health reformers with a rallying cry. Even as late as the 1890's the fear of cholera gave impetus to major public health reforms.

The medical profession was going through one of its most difficult times during the epidemics of Asiatic cholera. Revolutionary developments in science, technology, industry, and transportation were rapidly

changing the Western World. In the field of medicine gross anatomy had been well delineated, pathological anatomy was established, microscopy was laying the basis for histology and cellular pathology, and developments in chemistry and physics were being applied to physiology; but all these advances seemed meaningless in terms of the one major preoccupation of medical practitioners: how to deal with the great epidemic diseases. The germ theory had been postulated in the 16th century, but it was only one of many medical theories. Even the question of whether diseases were distinct entities or merely manifestations of constitutional imbalances induced by meteorological and other environmental conditions was still not settled. Moreover, physicians were equally at odds over medical treatment. To make matters worse, the rising spirit of scientific inquiry had destroyed faith in traditional authorities, but was unable at this time to fill the vacuum it had created. Searching desperately for some sort of stability, practitioners grouped themselves around forceful individuals who set forth their theories with firm conviction. Inevitably these schools of medical thought clashed with each other. Not content with intellectual disputes, physicians publicly criticized their colleagues' medical practices and often resorted to bitter personal attacks.

The advent of Asiatic cholera found the profession completely divided over its cause and method of treatment. Their experiences with cholera in 1832 convinced most physicians that the disease was not directly communicable. They noted, for example, that attending physicians in the cholera hospitals rarely if ever came down with it. They also recognized that the disease flourished in the crowded and filthy slum areas. Early in the 1832 outbreak Dr. Alexander Stevens, president of the New York City Board of Health's Special Medical Council, reported that the disease was confined to "the imprudent, the intemperate and those who injure themselves by taking improper medicines. . . ."<sup>23</sup> Dr. Stevens' letter to the board illustrates one other characteristic of physicians in those days; few of them doubted that they could cure the disease provided the treatment was initiated at the first onset.

The divisions among New York physicians reflected the divergent medical practices of doctors generally. The Special Medical Council advised that the best therapeutics were calomel, opium, brandy, and cayenne pepper. The Kappa Lambda Society, a group of physicians organized primarily for social purposes, recommended as a preventive

measure that patients be freely purged with calomel and aloes or scammony. Once the disease had set in, applications of heat, frictions and sinapisms were advised. Doses of medicine should be small, and "if thirst is urgent, cold or iced water, or ice in small quantities, is never injurious." In cases of collapse, hot enemas with laudanum and brandy were to be used. Another group of physicians issued a regular publication during the epidemic called the *Cholera Bulletin*. On July 23, 1832, the editor commented upon the widely differing modes of treatment, and sarcastically classified his colleagues into the Bleeders, the Calomel Band, the Opium Foragers, the Company of Stimulators, the Tobacco Brigade, the Saline Aparients, the Guard of Leechers and Blisterers, the Men of Friction, and the Icy Guard. Having contributed his own share to professional disunity, he blandly observed that too many doctors turn "the weapons that should be directed against the enemy towards their fellow 'filii Esculapii.'" <sup>24</sup>

In the intervening years between the first and second attacks of cholera, little progress was made, and the outbreak in 1848-1849 found the medical profession as divided as ever. Early in 1849 the city inspector for New York warned that the introduction of water from Croton had increased the dampness of the soil, a condition known to be conducive to cholera. The Board of Health's Special Medical Council reiterated the view expressed in 1832 that the cause of the disease lay in the atmosphere, but that it was usually brought on by "exciting causes" such as intemperance, inadequate diet, and so forth. The next month the Board of Health proclaimed that since "it has been incontestibly proved by sad experience that fish, fruits and vegetables, in a state of decomposition, are especially provocative of Cholera," the sale of these items from carts and wagons in the streets would be prohibited. The New York Academy of Medicine, after debating at great length, was unable to decide whether or not the disease was contagious. <sup>25</sup>

The New York Board of Health appointed a "Sanatory Committee" that included nine laymen and five prominent physicians to report on the 1849 epidemic. The committee explained that it did not intend to inquire into the causes, nature, or treatment of cholera, "feeling assured that if the members of [the medical] profession acknowledge themselves embarrassed by numerous problems connected with this mysterious disease" laymen can scarcely enter into it. The committee did conclude, however, that the disease was spread by the atmosphere. Dr.

William P. Buel, who had charge of two of the city's cholera hospitals, agreed with the committee, stating that he had found no evidence of contagion. His treatment consisted of administering opium by mouth and rectum to check the diarrhea. Since opium tended to reduce secretions, Dr. Buel compensated by prescribing camphor in chloroform. He added that tannin, "acetate of lead, nitrate of silver, sulphates of zinc, alumina and copper, were all used and with happy effects." The combination "of opium and acetate of lead, swallowed, or thrown in the rectum, forms a remedy of singular, and I think, unsurpassed efficiency." Illustrating what must have been a masterly balancing of his therapeutics, he wrote: "to restore suppressed secretions, calomel was, in the great majority of cases, administered, in combination with opium and astringents." His colleague, Dr. Alexander F. Vache, followed a similar regimen. It was Dr. Vache's judgment that "astringents and purgatives, copiously and promptly administered, are infinitely the best remedies." His preferred treatment was the use of tannin and calomel, combined with opium and camphor. "In the curable stages," he wrote firmly, "I do not doubt that the disease in most instances, will readily yield to these agents." Dr. Ovid P. Wells agreed with his colleagues, but he stressed the need to vary the treatment according to the needs of the patient. In serious cases he resorted to footbaths, "a strong infusion of capsicum," and mustard plasters to the stomach and abdomen. When fever supervened, he blistered the lower extremities, and cupped or leeches the abdomen, chest, and head.<sup>26</sup>

These same forms of therapy were used throughout the United States with occasional minor variations. A standard treatment on Louisiana plantations during the 1832 epidemic consisted of giving a large dose of calomel followed several hours later with a dose of castor oil. The old standby treatments, bleeding and blistering, were also resorted to as the disease progressed. One Louisiana physician wrote in 1855: "I have, for some years, prescribed cupping with as much confidence of success as a dentist would prescribe extraction for the tooth ache. I use the mercurial alterative merely to restore the secretions. The opium and astringent I use from habit. I commenced with them and have kept them up. I never use any medicine until the symptoms are relieved by counter-irritation." After describing what was obviously a rigorous form of therapy, the doctor stated with more truth than he realized that in cholera "as many die from excessive medication as die

from disease.”<sup>27</sup> A member of the Howard Association, a group of young business men in New Orleans who aided the sick in times of epidemics, wrote that his physician instructed him in a case of violent cramps “to give a salt and mustard emetic, to be followed by a dose of ten to twenty grains of calomel, afterward to keep the patient warmly covered in bed, and equalize the temperature of his body by mustard-baths or cataplasms on the extremities.”<sup>28</sup>

In the 1830's a number of experiments were made with an intravenous infusion of a saline solution. In nearly all instances the patients were virtually moribund, and although they revived temporarily, death ensued shortly afterward. A Pittsburgh newspaper in reporting one of these experiments in the city's Cholera Hospital in 1834 suggested that the saline infusion might prolong life long enough for the victims to be able to make their wills and settle their earthly affairs.<sup>29</sup> Nothing came of the experiments, and the results seem to have discouraged any further attempts.

By 1866 the reliance on massive doses of calomel, castor oil, and other drastic remedies was giving way to a more moderate practice. Dr. Warren Stone, writing in the *New Orleans Medical and Surgical Journal* in 1866, reported his success in giving cholera patients as much ice water as they wished. He also struck a blow at the traditional practice of counterirritants: “One thing, I know, certain, and that is, that the nerves cannot be tortured into the performance of their functions any more than heretics or rebels. The torture of counterirritants, hot applications, and burning things in a stomach, that is already suffering the sense of heat, only serves to intensify the disease and confirm the collapse.”<sup>30</sup> Heroic medical practices were to hang on for many more years, but Dr. Stone's viewpoint, which represented the attitude of the better physicians, shows that by 1866 the tide had already turned.

Regardless of the medical profession's views, the public never wavered in its belief that cholera was contagious. The first rumors of its presence was enough to start a mass exodus. With physicians and scientists in disagreement about the cause of cholera, state and municipal officials played safe by supporting both quarantine and sanitary measures. Whenever the disease threatened, city councils usually appointed a board of health or else assumed the powers and functions of a health board. The first action taken by these newly-created health boards was to proclaim a quarantine and to provide for the isolation of the sick.

The next step was to see that the sanitary regulations were resurrected and rigorously applied. Street-cleaning contractors, who looked upon their duties as nominal, suddenly found themselves denounced on all sides. Funds were appropriated to clean the streets, alleys, vacant lots, and other public areas, and special attention was paid to the discharges and refuse of the so-called "noisome" trades. Municipalities were forced to make some provision for the poor and the sick. Temporary cholera hospitals were established and, as they became crowded, not infrequently doctors and nurses were hired to care for the sick in their homes. The multitude of local health boards which came into existence during the first two waves of Asiatic cholera were temporary agencies designed to meet the emergency. Once the crisis was past, these boards were quickly disbanded.

The most notable change in the public reaction during the cholera years was the growing assumption that society could do something about epidemic diseases. During the first two waves of cholera the disease was equated with sin and poverty, two terms which were almost synonymous. Based on the assumption that God was punishing man for his wickedness, state and municipal authorities in the 1830's proclaimed days of fasting, prayer, and humiliation. A movement for one on the national level, however, was stoutly resisted by President Andrew Jackson on the grounds that such action would run counter to the American principle of separation of church and state. In 1849 Zachary Taylor had no such qualms and, with cholera striking a second time, he promptly declared a day of national prayer, fasting, and humiliation. By this time the sanitary movement was in full swing, and while government leaders still appealed for divine help, the major emphasis was upon self-help. The newly created temporary health boards were endowed with more money and more authority. Moreover, the presence of the disease for six or seven years kept these health agencies in operation for longer periods. The success of these boards in cleaning up many cities, combined with the fear of cholera, gave impetus to the movements for both health and social reform. The interrelation between poverty and disease was evident to all thoughtful men, and the outbreaks of cholera drove the lesson home.

By the third wave of cholera, 1866, municipal governments were beginning to assume responsibility for water, sewerage, and the collection of garbage, and the public was slowly coming to accept the idea

that health, too, was of public concern. The threat of the 1866 epidemic was a decisive factor in the creation of the Metropolitan Board of Health for New York City. It strengthened the powers of the Louisiana State Board of Health, and in every state it lent credence to the arguments of the health reformers. The movement for improved health and sanitation was the product of many forces; what Asiatic cholera did was to dramatize the issue and help bring public health to the fore.

## NOTES AND REFERENCES

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